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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,553	02/23/2004	Yukihiro Matsumoto	2004-2150.ORI	1928

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EXAMINER
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MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/784,553

Applicant(s)

MATSUMOTO, YUKIHIRO

Examiner

Virginia Manoharan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Claims 7 and 8 are objected to because the inconsistent used of terminology in the claims is improper. For example: the phrase " the two reboilers" in claim 7, and "the reboilers" in claim 8 are inconsistent with the initially recited at least two reboilers.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda et al (6,596,129) in view of Skraba et al (3,803,002) or Liebert (4,189,616).

The above references are applied for the same combined reasons as set forth at page 3 of the previous Office Action.

The now claimed "outer diameter"; " height" and "capacity " in claim 1 are deemed to be result- effective variables which ordinarily are within the skilled of the art.

Applicant's arguments filed February 8, 2005 have been fully considered but they are not persuasive.

Applicant's arguments that "the substance treated in the Skraba et al references is hydrocarbon, and hydrocarbon is not an easily polymerizable compound; and that the isoparaffin of Liebert is a non-polymerizable substances unlike the Yoneda reference and the present invention are of no patentable moment. The apparatus of Skraba et al or the Liebert's reference does not distinguished from the claimed invention based on

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the material or fluid – in –process. The fluid – in –process (product) is not the basis for patentability of an apparatus claim. The apparatus does not even see what goes through it. Nonetheless, the compounds mentioned at col. 1 lines 12-20 in Liebert is not limited, but, can be related to “other ...materials”. Moreover, applicant’s arguments that none of Yoneda et al., Skraba or Liebert discloses the object of the present invention, i.e., that the formation and adhesion of the polymer in the distillation column is prevented by preventing the channeling of the liquid or vapor in the distillation column is not considered well – taken. By now it is well-settled that the object, manner or method in which an apparatus is to be utilized is not germane to the issue of patentability of the apparatus itself. This view finds clear support in In re Otto, 136 USPTO 458,409 CCPA ('963).

An artisan knows that solids or residues in the distillation bottoms, would in time, generate incrustation or clogging problems. The collective teachings of the prior art , like the instant claims, solved the problems by installing two parallel reboilers. Thus, the argued “prevent channeling of the liquid or vapor in the distillation column, thus preventing formation and adhesion of polymer” would naturally result from the teachings of the prior art. Applicant admit as much when he states “...As disclosed at page 16, lines 11-28 of the present specification... the acrylic acid family, liquid from the distillation column is reboiled with at least two reboilers that are disposed in parallel to the distillation column. The inclusion of such a structure prevents polymer adhesion to the inside of the distillation column and clogging, without spoiling the treatment ability of the reboilers or spoiling the quality performance of the purification operation when

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compared with the case where the reboiling treatment is carried out with only one reboiler. The inclusion of such a structure prevents the channeling of liquid or vapor in the distillation column to thus stabilize internal temperature and thereby achieve stabilization of the distillation purification treatment and to efficiently enhance such treatment...”

Thus, in the absence of anything which may be “new” or unexpected result” a prima facie case of obviousness has been reasonably established by the art and has not been rebutted.

Unexpected result must be established by factual evidence. Mere arguments or conclusory statements in the specification, applicant’s amendments, or the Brief do not suffice. In re Lindner, 457 F. 2d 506, 508, 173 USPQ 356, 358 (CCPA 1972). In re Wood, 528, F. 2d 638, 642, 199 USPQ 137, 140 (CCPA 1978).

Applicant’s amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


It is suggested that claims 3, 5 recited in process terms with claim 8 (in independent form ) would place the case in condition for allowance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-271-1450. The examiner can normally be reached on Tuesday-Friday from 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

V. Manoharan/af  
May 18, 2005

  
VIRGINIA MANOHARAN  
PRIMARY EXAMINER  
ART UNIT 132/1764